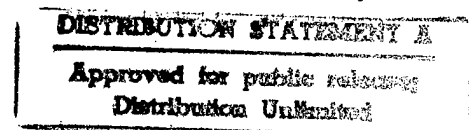


Final Technical Report for the Project:
Nearshore Processes, DURIP N00014-95-1-1117

Funds provided by this grant were to purchase a suite of sensors for measuring surface gravity waves, currents, and bathymetry in the littoral zone. The sensors will be deployed as part of SandyDuck, a multi-investigator nearshore field experiment to be conducted in 1997. Our experimental objective is to observe for several months the coupled evolution of the surface gravity wave field, the wave-driven quasi-steady circulation, and the nearshore bathymetry. During Duck94, a pilot experiment conducted in 1994, the variation of waves, currents, and bathymetry was well resolved along a single cross-shore transect extending from the shoreline to about 5 m depth. However, preliminary results suggest that long-shore inhomogeneities in the bathymetry may sometimes have caused strong alongshore variation in the nearshore circulation. The instrumentation purchased here will allow us to deploy multiple transects, and thus observe simultaneously both the alongshore and cross-shore variability of the wave-induced nearshore circulation and the associated bathymetric evolution. Funds were also provided to purchase a system to process the data stream in near-real time, allowing our observations to be used for both improved data-quality control and to help guide the deployment of the mobile instruments of other investigators.

The equipment has been purchased and is about to be shipped to the North Carolina field site for the SandyDuck experiment. Current meters, sonar altimeters, and pressure gages have been calibrated in the laboratory at the Scripps Institution of Oceanography. They will be deployed during July 1997. Software to display the observations in real time has been developed and tested successfully during a field deployment on Torrey Pines Beach, CA in 1996.

This was a DURIP request. The experiment that uses the equipment has not been conducted. There are no publications yet.



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PUBLICATIONS/PATENTS/PRESENTATIONS/HONORS REPORT

Contract/Grant Number: N00014-95-1-1117

Principal Investigator: Steve Elgar

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0 Papers published or in press, refereed journals

0 Papers submitted, refereed journals

0 Books or chapters published, refereed publication

0 Books or chapters submitted, refereed publication

0 Invited presentations

0 Contributed presentations

0 Technical reports and papers, non-refereed journals

Honors/awards/promotions

-appointed editor for Ocean Science, EOS (Elgar)

- promotion to full professor (Elgar)

0 Undergraduate students supported

0 Graduate students supported

0 Post-docs supported

0 Other professional personnel supported

EEO/Minority Support

0 Female grad students

0 Minority grad students

0 Asian grad students

0 Female post-docs

0 Minority post-docs

0 Asian post-docs